

Please replace the sentence on page 9, lines 5-10, with the following rewritten sentence:

--The following formula may be used to determine the capture-range.

$$f_c = 1/(2 \cdot \pi) \cdot \sqrt{((2 \cdot \pi \cdot f_L)/(3.6 \cdot 1000 \cdot C_2))} \quad (ii)$$

where  $C_2$  is the capacitance of the similarly designated capacitor in FIG. 4 and  $f_L$  is the lock-range.

Please replace the sentence on page 9, lines 11-12, with the following rewritten sentence:

--By evaluating the formula for the capture range, one can see that the capture range is limited by the low pass filter time constant.

Please replace the sentence on page 10, lines 4-8, with the following rewritten sentence:

--In order to implement the multiplication operation as shown by the multiplication circle 171 or 173, one should understand the following theory:

$$\cos(\omega_c) \cos(\omega_m) = (1/2) \cdot [\cos(\omega_c - \omega_m) + \cos(\omega_c + \omega_m)]$$

$\Rightarrow$  Fourier Transform  $\Rightarrow$

$$(1/4) \cdot [\delta(f + (f_c - f_m)) + \delta(f + (f_c + f_m)) + \delta(f - (f_c - f_m)) + \delta(f - (f_c + f_m))]$$

Please replace the sentence on page 17, lines 7-8, with the following rewritten sentence:

--Let us apply the external input  $a(t)$  with  $c_{ij} = \xi_i^0 \xi_j^0$  for a certain period of time.--

### In the Claims:

Please cancel claim 1 without prejudice.

Please cancel claim 2 without prejudice.

Please cancel claim 3 without prejudice.

Please cancel claim 4 without prejudice.